

Ann D. Berkowitz Project Manager – Federal Affairs

August 22, 2002

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#### **Ex Parte**

Marlene H. Dortch Secretary Federal Communications Commission 445 12<sup>th</sup> H Street, SW, Portals Washington, DC 20554

> Re: <u>Application by Verizon for Authorization To Provide In-Region, InterLATA</u> Services in State of Virginia, WC Docket No. 02-214

Dear Ms. Dortch:

At the request of the Wireline Competition Bureau, Verizon conducted an overview of our Wholesale and OSS services yesterday in Silver Spring, MD. The meeting attendees were: C. Odom, L. Owsley, K. McLean, J. White, M. Davis, S. Herrling and the undersigned of Verizon and U. Onyeije, D. Johnson, A. Gonzalez, I. Dillner, K. Jackson, S. Mackoul, M. McManus and C. Seppings of the FCC. The materials used during the session are attached. Please let me know if you have any questions. The twenty-page limit does not apply as set forth in DA 02-1857.

Sincerely,

Attachments

cc:

U. Onyeije

B. Olson

G. Remondino

D. Johnson

A. Gonzalez

I. Dillner

K. Jackson

S. Mackoul

M. McManus

C. Seppings

# VERIZON FCC VIRGINIA OSS TOUR & TUTORIAL WEDNESDAY, AUGUST 21, 2002

FCC Attendees: Uzoma Onyeije (Team Leader), Ian Dillner, Alvaro Gonzalez, Kim Jackson, Dennis Johnson, Scott Mackoul, Mary McManus, Cecilia Seppings

TIMES	AGENDA ITEM OR EVENT	VERIZON PERSON
10:00 AM	Arrival of FCC Staff at Silver Spring NMC Ground Transportation provided from FCC to 13100 Columbia Pike, Silver Spring, Maryland (Visitors Entrance)	Clint Odom Ann Berkowitz
10:05 AM	Check in FCC Visitors  Prepare FCC visitor badges in advance. Escort visitors to conference room. Coffee and light refreshments will be available.	Steve Herrling
10:10 AM	Welcome to NMC and Overview of Agenda and Introduction of SMEs and Presenters Few words about Silver Spring NMC and introduce NMC guides. Handout copies of slide presentations.	Steve Herrling Clint Odom
10:15 AM	Loops – Provisioning; Maintenance & Repair  New Loops  Hot Cuts  DSL	Maureen Davis
11:15 AM	Operating Support Systems  Functionality & OSS Interfaces Pre-ordering (including Loop Qualification) Ordering Provisioning Billing Maintenance & Repair Development Approach & Change Management Change Requests Documentation Testing Help Desk KPMG Testing Production Experience Wholesale Customer Support	Kathleen McLean John White
12:45 PM	Working Lunch & Grab Sandwiches	
1:00 PM	WEB GUI Demonstration – UNE and Resale Transactions	Kathleen McLean John White
1:30 PM	Tour of the NMC Walk floor and introduce customer service reps in action. Verizon CLEC/UNE and resale center and parallel observation with Verizon CLEC service reps.	Steve Herrling
2:15 PM	Q&A (HANDOUT COMMENTS AND CD-ROMS, IF AVAILABLE)	
2:30 PM	Depart	

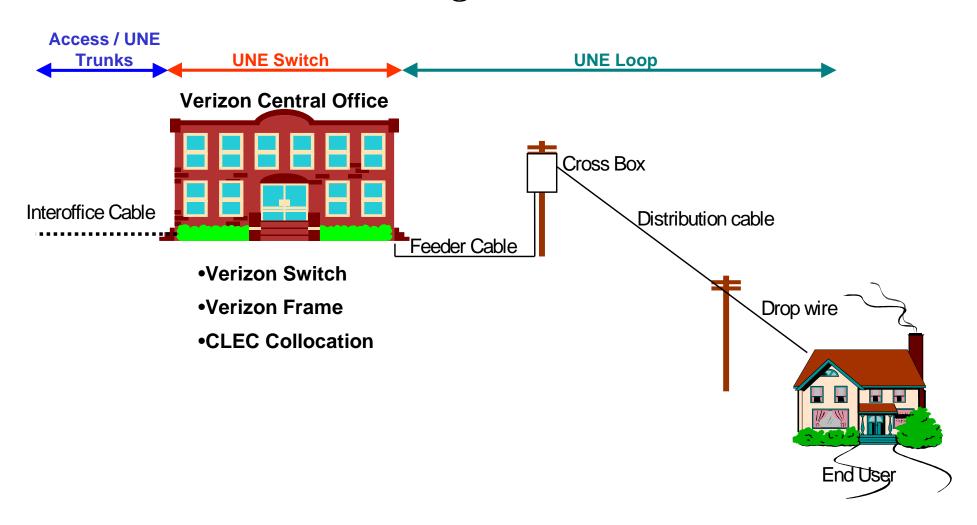


# Wholesale Services Local Process Overview

Provisioning and Maintenance August, 2002



# Unbundling the Network





# Most Common Loop Types by Mode of Entry

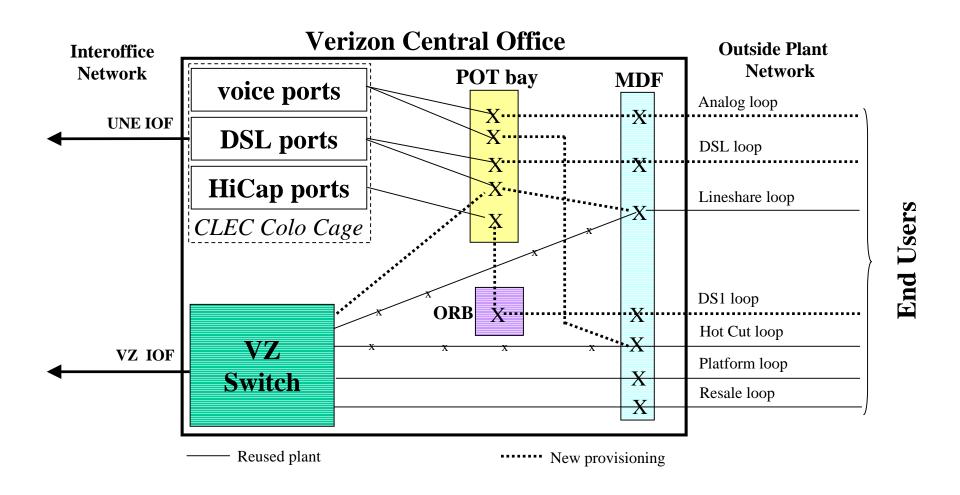
MOE UNE	Loop Type Analog-new Analog-hotcut Platform migration DS1/DS3 loop IOF	Offered Interval Retail Smartsclock 5 days 1-2 days 9-15 days 15 days
DSL	Stand alone loop 2 Wire Digital Linesharing Linesplitting	5 days 5 days 3 days 3 days
Resale	Resale migration	1-2 days

Add/remove features

same as retail

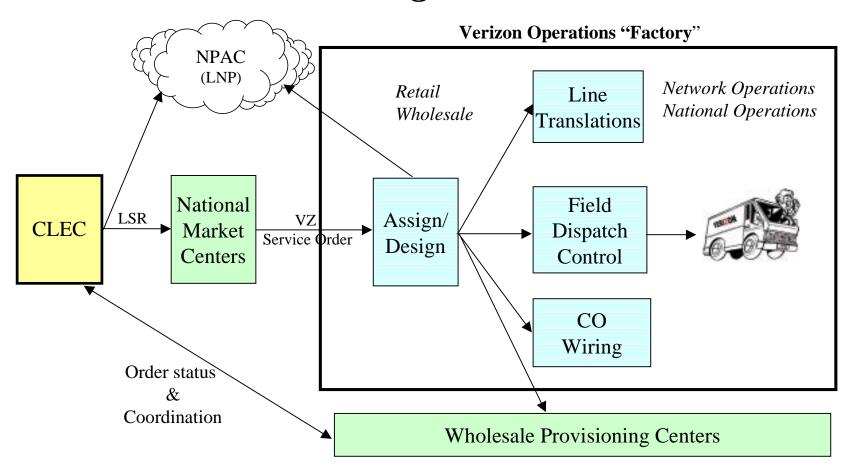


# Basic CLEC Loop Configurations





# Provisioning Work Flow



Provisioning Oversight: Platform, Resale, DSL, Lineshare

Order Control: Hotcuts, Hi-caps



# Provisioning Metric Families

- •Measures for provisioning intervals, timeliness and quality
- Varies by state
- •Product specific

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PR 1 Offered Intervals
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PR 2 Completed Intervals

PR 3 % Completed in XX Days

PR 4 % Missed Appointments

PR 5 % Missed-Facilities

PR 6 % Installation Troubles within 7/30 Days

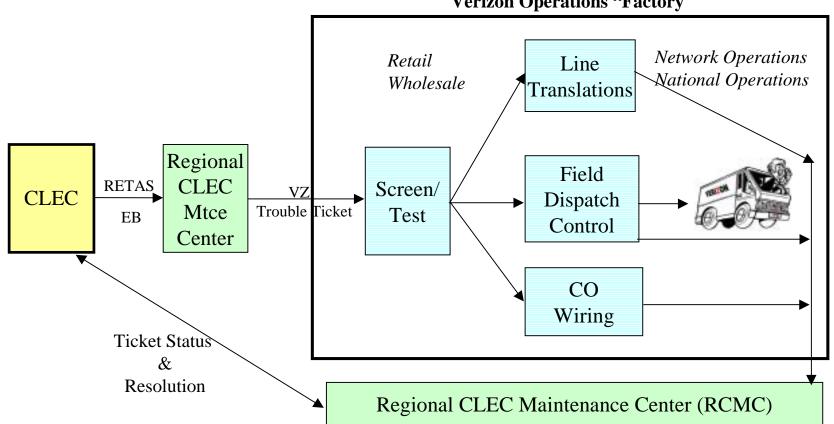
PR 8 % On Hold > 30 Days

PR 9 % On Time - Hotcuts



# Maintenance Work Flow

**Verizon Operations "Factory"** 

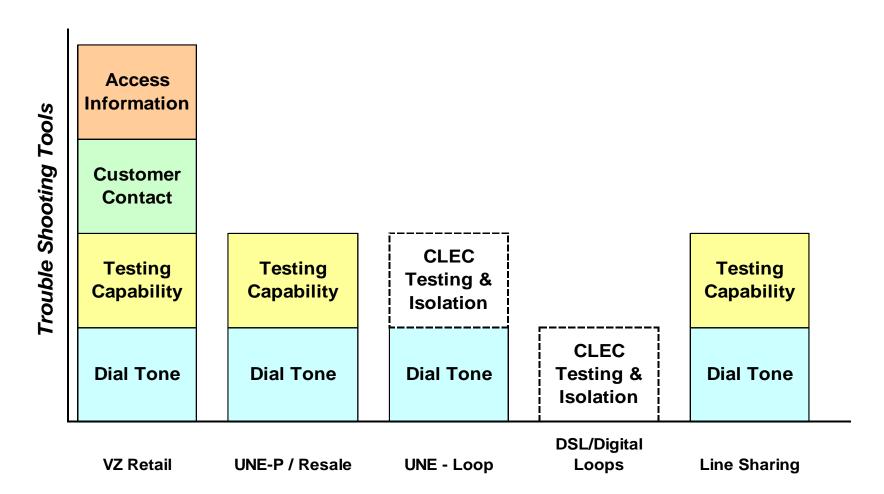


Maintenance Oversight: Platform, Resale

Maintenance Control: Loops, Hicap, LineShare

# **Maintenance Variables**





Complexity of Service



# Maintenance Metric Families

- Measures for frequency, timeliness, duration and quality
- MR 1 -- OSS Interface Response Times
- MR 2 -- Report Rate
  - Appropriate Retail Compare Group
- MR 3 -- % Missed Appointments
  - Redirected Reports
- MR 4 -- Mean Time to Repair
   WOOS > X Hours
  - Stop Clock, Redirected Reports
- MR 5 -- % Repeat Reports
  - •No Access, Misdirected reports



# Operations Support Systems Overview

August 2002

Presented by:
Kathleen McLean
Senior Vice-President

OSS Planning & Performance Assurance

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# Agenda

- Functionality & OSS Interfaces
- Development Approach,
   Change Management and CLEC Support
- Production Experience
- Third Party Testing



# **Functionality & OSS Interfaces**



# **Wholesale Processes and Functions**

Wholesale Processes	Pre-Ordering	Ordering	Provisioning	Billing	Maintenance & Repair
Wholesale Functions	Customer Service Record (CSR) Address Validation Telephone Number Reservation and Selection Product and Service Availability Due Date Availability Loop Qualification for ISDN Loop Qualification for xDSL xDSL Loop Qual — Extended Loop Make-up Directory Listing Installation Status Inquiry Service Order Inquiry	Local Service     Request (LSR) or     Access Service     Request (ASR)     Service Order     Local Service     Request Confirmation     - (LSRC)/Firm Order     Confirmation - FOC)     Reject Notice with an error message if order could not enter SOP     Status Notices     (Provisioning     Completions - PCN,     Billing Completions -     BCN, Jeopardies)	Hotcut coordination     Switch translations for feature activation     Local facility and central office facility assignment     Installation requirements     E911 system updates     Call screening updates	Provide Wholesale bills via Connect:Direct, on paper, on tape, or on CD-ROM at the CLEC's choice Provide bills in Bill Data Tape format Provide daily usage in accordance with EMI format	Test POTs lines and Special Services     Create Trouble Ticket     Obtain Trouble Status     Modify Trouble Ticket     Cancel Trouble Ticket     Obtain Trouble Ticket     History     Trouble Ticket Service Recovery



#### **Verizon OSS Interfaces**

**Verizon offers two interfaces for pre-order and ordering/provisioning:** 

- Web GUI a human to computer interface built using Web technologies and accessed through direct connection or through the Internet
- <u>Electronic Data Interchange (EDI)</u> an application-to-application interface that enables a CLEC to electronically connect its OSS to Verizon's OSS

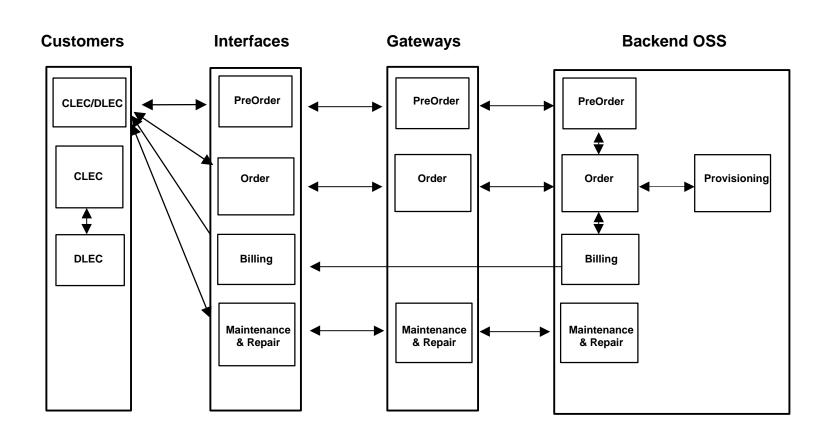
and a third for pre-ordering....

- <u>Common Object Request Broker Architecture (CORBA)</u> an application-to-application interface that enables a CLEC to electronically connect its OSS to Verizon's OSS
- Verizon offers two interfaces for maintenance and repair:
  - Web GUI a human to machine interface built using Web technologies and accessed through direct connection or through the Internet
  - <u>Electronic Bonding Interface (EBI) -</u> an application-to-application interface that enables a CLEC to electronically connect its OSS to Verizon's OSS
- Verizon supplies call usage data for billing purposes to CLECs via the Daily Usage File (DUF) available via electronic transfer or magnetic tape
- Verizon offers bills in two formats:
  - Verizon end user format available on paper, CD-ROM, magnetic tape
  - <u>Billing Output Specification, Bill Data Tape (BOS BDT)</u> available on magnetic tape or electronic transfer (Connect:Direct)

Verizon's OSS interfaces have been developed consistent with industry standards and guidelines as promulgated by the subcommittees of the Alliance for Telecommunications Industry Solutions (ATIS)



## **High Level Wholesale OSS System Flow**



**CLEC Support** 

- Documentation
- Workshops
- Change Management and Notification
- Carrier to Carrier Testing
- WCCC Help Desk
- Training

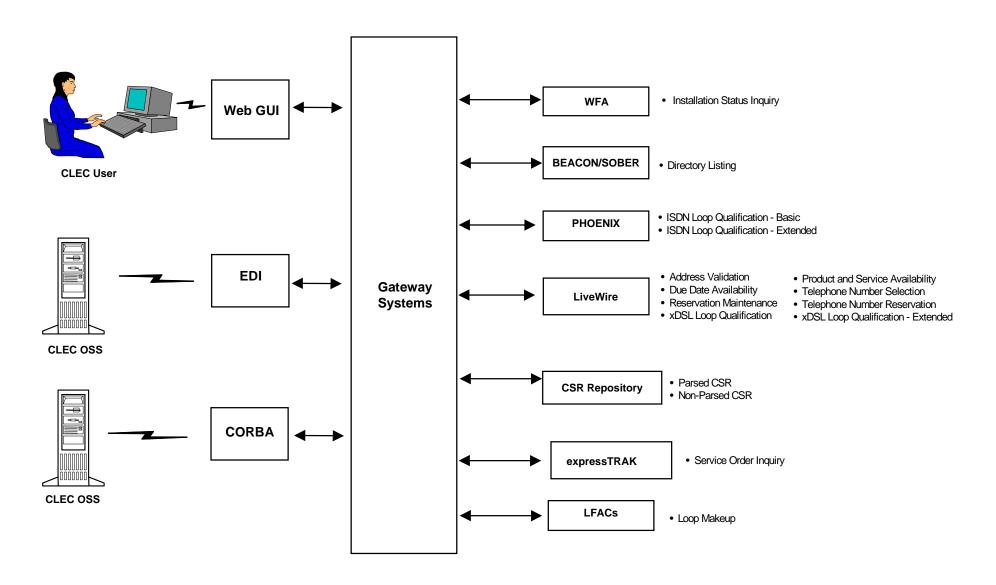


## **Pre-Ordering Process**

- Before placing an order, CLECs can:
  - Access end-user Customer Service Records (CSRs) in parsed and unparsed formats.
     CSRs include:
    - Billing name and address
    - Billing and working telephone numbers for the account
    - List of all services provided to the end-user
    - The end-user's presubscribed interexchange carrier and local (or intraLATA)
       prescribed interexchange carrier ("PIC" and "LPIC")
  - Determine the availability of features and functions
  - Determine local and long distance carriers by NPA/NXX
  - Reserve and select telephone numbers and verify addresses
  - View the end-user's existing directory listing
  - Select due dates
  - Check whether a loop is qualified for ISDN or xDSL services
    - Request a "manual" loop qualification
    - Review loop make-up information
- After an order has been placed, CLECs can:
  - Check the installation status of the order
  - Obtain a copy of the service order as it exists in Verizon's Service Order Processor (SOP)



### **MDVW Pre-Order Process Flow**



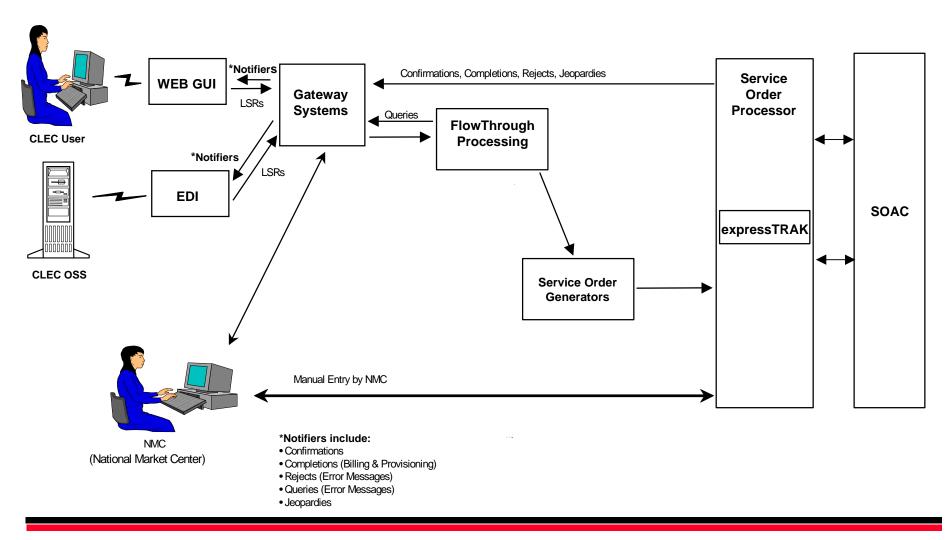


## **Ordering Process**

- CLECs use Local Service Requests (LSRs) to order Resale, UNE-Platform, and UNEs.
- CLECs submit an LSR. Verizon sends acknowledgement of receipt to CLECs.
- Verizon validates the LSR.
  - If errors are detected, error messages are returned to the CLEC.
  - If the LSR passes validation, one or more Service Order(s) is/are created.
- CLECs receive a Local Service Request Confirmation (LSRC)/Firm Order Confirmation (FOC) to indicate that the order has entered the Service Order Processor (SOP)
- The ordering process includes the delivery of status notifiers as the order progresses through work steps:
  - Provisioning Completion Notifier (PCN)
  - Billing Completion Notifier (BCN)
  - Jeopardy Notifier (JEP)



## **MDVW Order Process Flow**



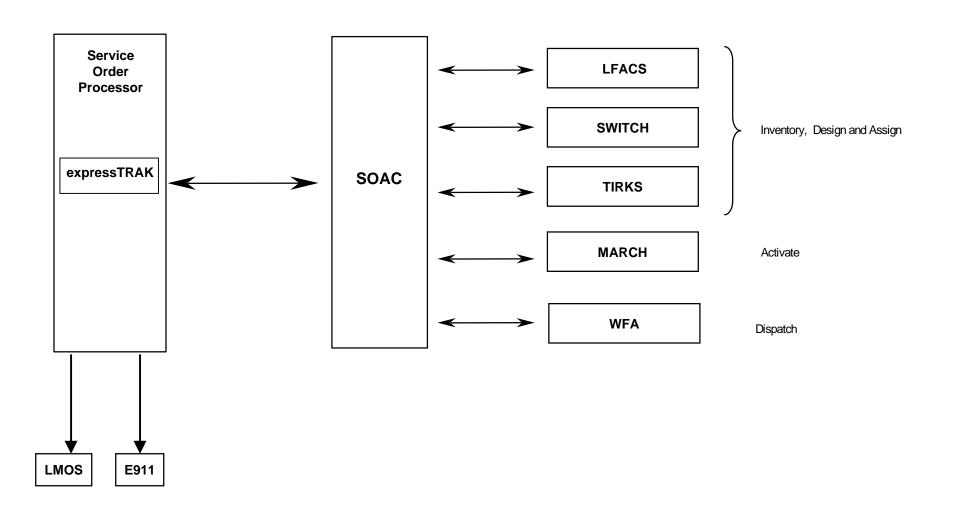


## **Provisioning Process**

- Provisioning is essentially internal to Verizon once an order is submitted
- Systems and processes for most CLEC orders are the same as those used for Verizon's retail orders
- Provisioning includes:
  - Specific processes for loop orders for CLECs that have no retail analog
  - Switch translations for feature activation
  - Local facility and central office facility assignment
  - Installation requirements/dispatch
  - E911 system updates
  - Call screening updates
  - Maintenance system updates
  - Billing updates



## **MDVW Provisioning Process Flow**



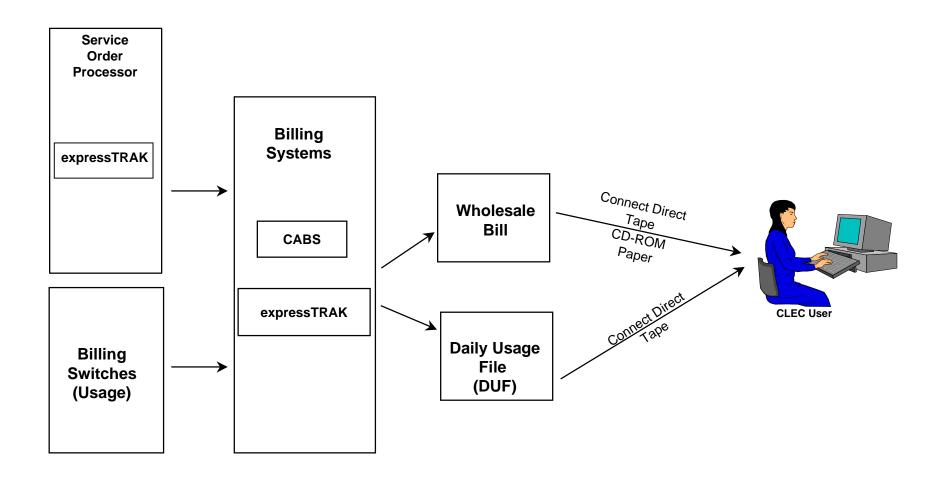


## **Billing Process**

- Billing systems are the same as those used for Verizon's retail and interexchange customers
- Billing includes:
  - Unbundled Network Element (UNE) charges
  - Usage billing information/Daily Usage File (DUF)
  - Recurring charges
  - Non-Recurring charges
  - Service activity related charges/credits
  - Wholesale bill
- CLECs can receive bills via:
  - Connect:Direct
  - Paper
  - Tape
  - CD-ROM

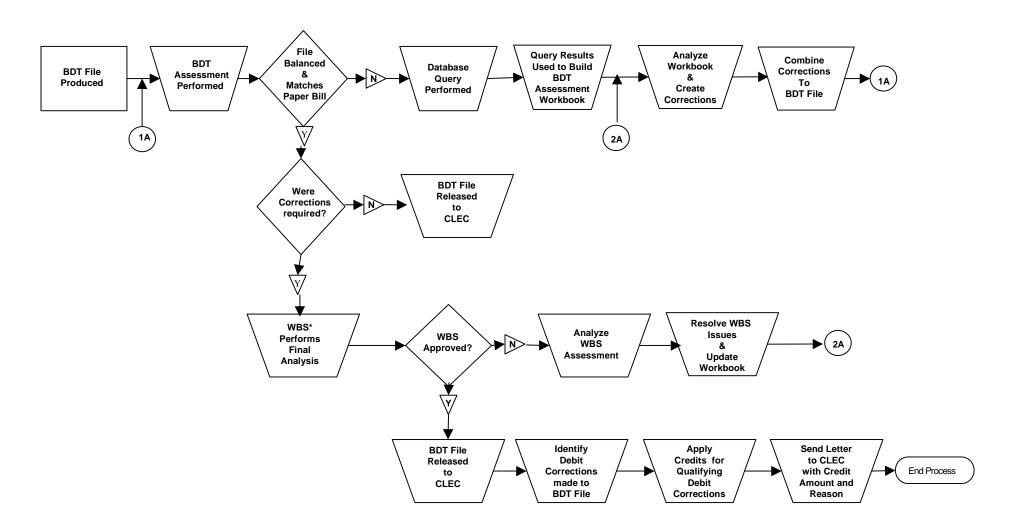


## **MDVW Billing Process Flow**





## The BOS BDT Quality Review and Adjustment Process



<sup>\*</sup> Wholesale Billing Service Group

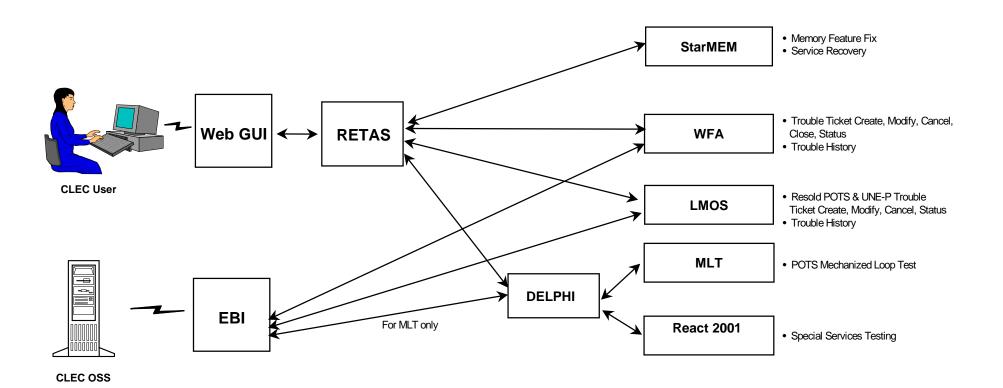


## **Maintenance & Repair Process**

- CLECs can perform the following functions:
  - Test
    - POTS lines
    - Special Services (via Web GUI only)
  - Create Trouble Ticket
  - Obtain Trouble Status
  - Modify Trouble Ticket
  - Request Cancellation of Trouble Ticket
  - Request Trouble Ticket History
  - Trouble Ticket Service Recovery



## MDVW Maintenance & Repair Process Flow

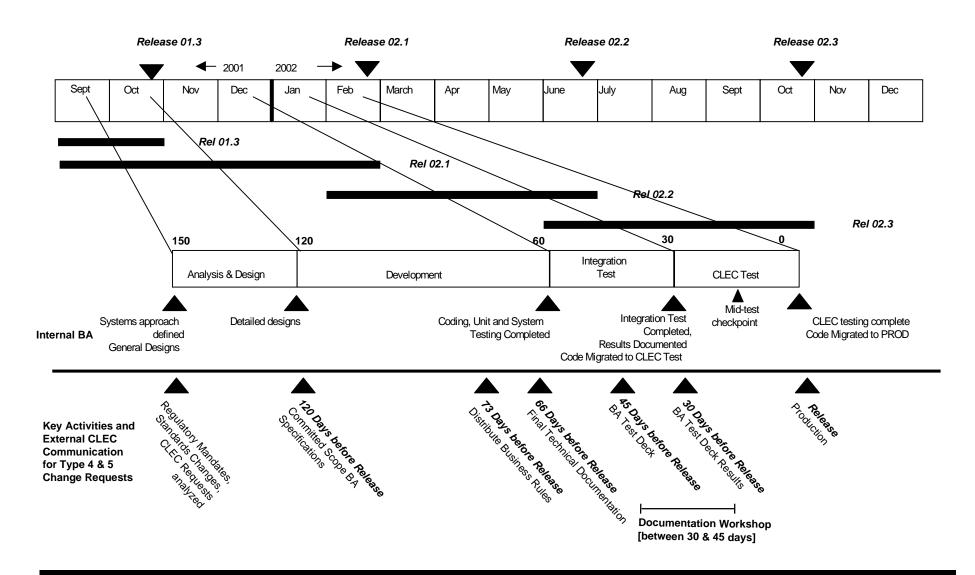




# Development Approach, Change Management & CLEC Support



## **Development Timeline and 2002 Planned Release Schedule**





# **Change Management & CLEC Support**

Change Management	Assistance & Documentation	CLEC Test Environment (CTE)	Wholesale Customer Care Center (Help Desk)
<ul> <li>Conducts monthly meetings with CLECs to discuss system-related matters</li> <li>Manages distribution of System and Business Rule Change Notices</li> <li>Works with CLECs to define requirements and prioritize systems changes</li> <li>Sponsors workshops on topics such as help desk processes, CLEC-to-CLEC migrations and others</li> <li>Receives requests from CLECs for system changes, and manages all types of Change Requests:         <ul> <li>Type 1-Emergency Maintenance</li> <li>Type 2-Regulatory Change</li> <li>Type 3-Industry Standard Change</li> <li>Type 4-Verizon-originated Change</li> </ul> </li> </ul>	Assistance  Customer Information Response Team  Connectivity Support  Industry Issues Management, special projects and topics  OSS Support, assistance to small and intermediate CLECs  Customer Education Workshops, online training and documentation  Pre-Order & Order Business Rules  Pre-Order & Order EDI Specifications  Combined Pre-Order & Order Documentation  (Business rules and EDI specs)  Pre-Order CORBA Specifications  Combined Pre-Order Documentation  (Business Rules and CORBA Specs)  Specifications for Access Service Request  Web GUI User Guide  Order Error Messages  Trouble Administration Business Rules  E911 PS/ALI Guide  Test Deck  CLEC Handbook	<ul> <li>Provides CLECs with stable environment for application to application pre-ordering and ordering new entrant and new release testing</li> <li>Contains same applications as production, up to and including SOP</li> <li>Contains CLEC and Verizon test data</li> <li>Matches production environment except during CLEC test periods for new releases, when it matches what will be in production following the release</li> <li>Parallels production environment in resolution of problems and issues</li> <li>Supported by Verizon Test Coordinators, Customer Support Team, and Wholesale Customer Care Center (WCCC)</li> <li>CLECs submit test plan six weeks prior to release implementation</li> </ul>	<ul> <li>Provides a single point of contact for all CLEC reports of systems issues, to provide timely notification to the CLECs of such events, and to ensure that any problems are resolved as quickly as possible</li> <li>Serves CLECs operating throughout the former 14 state Bell Atlantic region</li> <li>Answers incoming calls from CLECs regarding the Verizon Web GUI or the Verizon OSS interfaces to CLEC provided applications</li> <li>Located in Newark, NJ</li> </ul>

## **Regularly Scheduled Meetings**



# **Production Experience**



#### **Production Information**

- ➤ Verizon provides CLECs with the same OSS interfaces and functionality in Virginia as it does in New York, Massachusetts, Pennsylvania and throughout the former Bell Atlantic states.
- ➤ There is one set of Verizon pre-ordering and ordering interfaces and gateway systems throughout the former Bell Atlantic states. The backend OSS in Virginia are different than New York, New England, Pennsylvania/Delaware and New Jersey. The backend OSS in Virginia are the same as Maryland, DC and West Virginia.
- ➤ In the former Bell Atlantic states, Verizon processes over 775,000 LSRs and over 2.5 million pre-order transactions each month.

June 2002		
State	Order	Pre-Order
Delaware	4,458	21,623
Maryland	51,743	169,731
New Jersey	43,861	179,872
Pennsylvania	113,636	452,848
Virginia	64,636	201,850
Washington DC	11,747	36,594
West Virginia	5,132	22,986
South Total	295,213	1,085,504

June 2002		
State	Order	Pre-Order
Connecticut	368	2,012
Massachusetts	74,817	220,761
Maine	4,581	19,278
New Hampshire	9,539	28,484
New York	380,830	1,144,999
Rhode Island	8,048	21,714
Vermont	1,985	9,198
North Total	480,168	1,446,446

VERIZON-EAST	775,381	2,531,950
V LINIZOIN-LAS I	113,301	2,331,330



#### **Production Information**

- Over 201,000 pre-order transactions were processed for Virginia in June 2002
  - ➤ Approximately 64% of pre-order transactions were via Web GUI, 15% via EDI and 21% via CORBA
- ➤ Over 64,000 LSRs were processed in Virginia in June 2002
  - > Approximately 39% of LSRs were received via EDI and 61% via Web GUI
  - **≻Order Mix**

➤ Resale ~ 24%
 ➤ UNE - Other ~ 66%
 ➤ UNE - Platform ~ 10%

- ➤ Over 1800 Maintenance and Repair transactions were processed in Virginia in June 2000, with approximately 95% via Web GUI.
- > Billing
  - Produced more than 725 wholesale bills each month in Virginia
  - ➤ In June, produced 87 BOS/BDTs for 42 CLECs in Virginia



# **Third Party Testing**

- KPMG test of Verizon OSS for MDVW



#### **≻**Overview

- The Virginia State Corporation Commission (Commission) retained KPMG Consulting to conduct an independent, third-party test. This test evaluated Verizon's OSS, interfaces, processes and documentation that support CLEC market entry.
- All Stages of the CLEC-ILEC relationship were considered, including:
  - Establishing the Relationship
  - Performing Daily Operations
  - Maintaining the Relationship

## **≻**Scope

- The test scope was based on Commission, CLEC and Verizon input. The Service Delivery Methods included:
  - •Resale
  - Unbundled Network Elements (UNE)
  - Unbundled Network Elements-Platform (UNE-P)
- Tests were organized into five functional areas:
  - •Relationship Management and Infrastructure
  - Pre-Order, Order and Provisioning
  - Billing
  - Maintenance and Repair
  - Performance Metrics Reporting



## > Relationship Management and Infrastructure (RMI)

KPMG evaluated the processes that support establishing and maintaining relationships between Verizon and CLECs including change management, interface development, account establishment and management, help desks, CLEC training and forecasting.

KPMG confirmed that Verizon provides non discriminatory Relationship Management and Infrastructure support to CLECs through evaluation of 85 test points. KPMG reported each RMI test point as satisfied.

## **≻Pre-Ordering, Ordering, and Provisioning (POP)**

KPMG evaluated system functionality, processes and other operational elements associated with Pre-order, Order and Provisioning activities which included Capacity Management and Methods and Procedures.

KPMG confirmed that Verizon provided non discriminatory POP support to CLECs through evaluation of 182 test points. KPMG reported 181 test point as satisfied and only 1 as Not Satisfied.



#### **Capacity Management**

KPMG evaluated Verizon's "Capacity Management" process for Wholesale systems to ensure that Verizon continues to handle increasing traffic volumes with consistent performance.

#### **Volume Testing**

KPMG verified Verizon's ability to provide increased CLEC business volumes by executing three series of volume tests based on regional volume forecasts.

- Normal volumes projected for 6 months in the future
- Peak volumes (125% to 150% of normal volume test)
- Stress volumes (150% to 175% of normal volume test)

Together with the commercial volume of orders that Verizon already is handling, KPMG confirmed that Verizon provides non discriminatory order processing to CLECs.

#### **Methods & Procedures**

KPMG evaluated the methods and procedures, processes, and systems used by Verizon to provision both retail and wholesale orders. KPMG found that both the design of the methods, processes and systems, and the actual handling of orders, were non discriminatory.



## > Billing (BLG)

The Billing evaluation included tests of procedures and verification of actual bills from the expressTRAK System and Carrier Access Billing System (CABS). KPMG evaluated the following areas:

- Billing Help Desk
- Daily Usage Files (DUF)
- Bill Production, Distribution and Accuracy

KPMG confirmed Verizon provides non discriminatory Billing services to CLECs through the evaluation of 75 billing points. Each of these test points were satisfied.

## Maintenance & Repair (M&R)

KPMG evaluated Verizon's procedures, documentation, and systems that allow a CLEC to identify, report, manage and resolve troubles encountered with Verizon VA supplied network elements.

KPMG confirmed Verizon's ability to provide non discriminatory Maintenance & Repair services to CLECs though the evaluation of 77 test points. KPMG reported 75 test point as satisfied and 2 as Inconclusive.



## > Performance Metrics Reporting (PMR)

This test evaluated the processes and systems used to capture Verizon VA Retail and Wholesale metrics for all domains. This process included metric data collection, data storage, metric verification and validation. In addition, KPMG reviewed the metrics change management and notification processes.

KPMG confirmed that Verizon accurately reports Virginia performance metrics through the evaluation of 126 test points. KPMG reported 123 test point as satisfied and 3 as Not Applicable.



### > Conclusion

Verizon's interfaces, support systems, and processes have been subject to a thorough and comprehensive third party testing process similar to the third party test of Verizon's systems in New York, Massachusetts, Pennsylvania and New Jersey.

KPMG examined 545 test points and concluded that Verizon had satisfied 99% of them.

• 539 were Satisfied

•2 Inconclusive

• 1 was Not Satisfied

•3 Not Applicable